Office of the State Engineer

Mr. Kent Lokkesmoe
Director, Waters
Minnesota Department of Natural Resources
500 Lafayette Rd, Box 32
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May 7, 2004

Dear Kent:

In early March of this year, you provided me with a report produced by your agency that responded to information researched by the North Dakota State Water Commission (NDSWC) regarding the issue of interbasin transfers of water in Minnesota.

I would like to thank you for promptly and seriously addressing the issue of biota transfer. As you know, North Dakota feels that this issue is vitally important.

While I wish to express thanks for your response, some comments are appropriate.

Background

It is important to address the sources of our original memorandum and associated figure, all of which are included with this response. The first document that you refer to in your report, is a joint United States Geological Survey (USGS) and Minnesota Department of Natural Resources (MNDNR) report completed in 1988. The title of this report is "Inventory of Interbasin Water Transfers In Minnesota" (Open-File Report 88-466.) This report essentially catalogues known water transfers between distinct hydrological basins in Minnesota, largely for the purposes of developing a statewide water budget.

Additional materials on closed-basin lake outlets in Minnesota were also generated with the assistance of various MNDNR hydrologists, and in some cases by accessing the relevant permitting data. Therefore, MNDNR was the source for the majority of our information.

Closed-Basin Lake Outlets

With respect to the section of your report that addresses the 79 closed-basin lakes in Minnesota that are known to have an outlet, I would like to make several points of clarification to address some discrepancies that I found in your report.

One assumption made in your report, is that because the closed-basin lakes in Minnesota with outlets are smaller in area than Devils Lake, those lakes would have a lower chance of containing exotic aquatic organisms. You state on page 5, paragraph 4 of your report "*Risk of biota transfer in these situations has ordinarily been low, due to the scale, local environment and human use of the water bodies.*"

While it is true that a smaller lake has a lower chance of containing an unknown aquatic organism, the combined risk of the 79 closed-basin lakes with outlets is significant.

Another assumption made in your report, is that an older connection from a closed-basin lake has very little chance of transferring aquatic organisms in the future. In fact, the age of a connection has very little to do with the odds of transferring biota. For example, the risk of existing outlets transferring zebra mussels (*Dreissena polymorpha*) from the Great Lakes basin to the Mississippi River basin was zero until zebra mussels were introduced into the Great Lakes via tanker ballast.

While it is likely that any aquatic organisms that are native to the waterbody would have moved immediately, an existing connection represents an ongoing pathway for any new aquatic organisms, such as zebra mussels that could be introduced into the waterbody via some other means (boats, bait buckets, etc...).

Although the level of study that Minnesota has required for those 79 lake outlets, and the potential for an undesirable aquatic species to move into an existing closed-basin lake with an outlet in the future are unknown, there are certain salient facts that dispute some of the points that were made in your report.

For example, it is stated on page 5, paragraph 4 that "*Where biota transfer or other environmental risks have been greater, project modifications or extensive water quality monitoring (like for the Union/Sarah Lakes outlet) have been required.*"

This claim is at odds with the Pulaski Lake situation. Pulaski Lake, in the Mississippi River basin in Wright County, Minnesota, is a closed-basin or land-locked lake, as classified by MNDNR, which evidently experienced flooding problems in the 1990's. An outlet was proposed as a solution to the flooding problems.

Unfortunately, Pulaski Lake contained Eurasian watermilfoil (*Myriophyllum spicatum)*, a plant on Minnesota's Prohibited Exotic Species List, and the waterbody proposed to receive the water via the outlet did not.

Despite this fact, the Lake Pulaski Improvement District was granted a Protected Waters Permit (Amended P.A. Number: 87-3002) by the MNDNR in 1998, allowing for the operation and maintenance of a screened and pumped outlet at a maximum discharge rate of 18 cfs.

The exact wording of the permit was "*The permittee shall insure that every reasonable precaution is taken on the outlet system to prevent inoculation of the downstream receiving waters by Eurasian Watermilfoil. In addition to any other reasonable efforts, the outlet shall be screened such that all water discharged through the system is filtered through a screen with mesh no larger than 0.5 mm.*"

Despite the precautions described, the receiving waters were eventually found to contain milfoil.

On page 5, paragraph 3 of your report, it is stated that "*North Dakota compares to past projects and would like to have you draw the conclusion that because some inter-basin transfers exist across the United States and Canada, adding more is ok. We do not agree with their logic.*"

What you seem to be indicating, is that Minnesota will not divert additional water across basin divides, drain any new closed-basin lakes, nor increase the flow from those lakes in the future. Unfortunately, actions in Minnesota have contradicted this claim.

For example, in 1994, a MNDNR permit was granted for a 75 cfs outlet from Bailey Lake in the Mississippi River basin in Washington County, Minnesota (Permit Number 94-8178). However, in May of 2003, there was consideration of increasing the discharge from that closed-basin lake outlet to 180 cfs.

Another example of Minnesota pursuing a closed-basin lake outlet today is Swede Grove Lake in the Red River basin in Clay County, Minnesota. On January 28, 2004, the Fargo Forum carried an article referencing a Clay County Commission vote, that passed, to petition the Buffalo-Red River Watershed District to develop a permanent flood reduction plan for the area which will likely include a permanent outlet, after the temporary outlet built in 1998 was removed.

Yet another example would be Lake Belle Taine, a closed-basin lake in the Mississippi River basin in Hubbard County, Minnesota. A 20 cfs outlet is proposed, pumping water into three infiltration basins with 120 acre-feet of total storage, outside the basin. The proposed infiltration basins lie in close proximity to a designated trout stream. The consulting engineering firm has completed a voluntary Minnesota Environmental Assessment Worksheet. A meeting is scheduled for the middle of August 2004, to gather public comments on the proposal. Other than for construction of the intake structures and infiltration basins, no MNDNR permit will be required to pump water from this closed-basin lake; no biological assessments related to the proposed project have been conducted on this waterbody, in order to document the presence of any exotic aquatic organisms; and no contingency plans for outlet operation have been developed to deal with the appearance of an exotic aquatic organism in Lake Belle Taine.

Minnesota has also failed to oppose closed-basin lake outlets in states other than North Dakota that share a common watershed.

Shell Lake is a closed-basin lake in the Mississippi River basin in western Wisconsin. As a result of years of increased precipitation, the lake's level rose, and the lake was beginning to threaten the surrounding community. To control the flooding problem, a 20 cfs outlet was proposed, emptying into the nearby Yellow River, a tributary that enters the Mississippi River below Minneapolis.

In contrast with the Devils Lake outlet, the MNDNR made no formal opposition to the Shell Lake outlet, and in November of 2003, the outlet became operational.

Using the definition of biota transfer on page 2, number 2 in your report, "*...basins are separate large landscapes with separate sets of inherently complex aquatic habitats that do not have an aquatic connection,*" the Devils Lake outlet would not qualify as an interbasin transfer because there is at least one well-documented surface water connection, and a number of additional anecdotal surface water connections between the Devils Lake and the Red River basins.

It is stated in your report that Minnesota's concern about interbasin transfers is based in part upon the Great Lakes policy, which you claim requires the evaluation of larger diversions.

While you are unclear on what exactly constitutes a "larger diversion", a related point, would be Minnesota's position on the Chicago Sewage and Shipping Canal, which diverts 3,200 cfs of water out of the Great Lakes basin into the Mississippi River basin.

While the Chicago Diversion is over 100 years old, there is a more recent diversion in Akron, Ohio, which was built in 1998. This project also diverts 7.7 cfs of water from Lake Erie in the Great Lakes basin, into the Mississippi River basin for the purpose of municipal water supply. The Akron diversion was approved by the Great Lakes Commission, which includes Minnesota.

Final Thoughts

I have no desire to criticize Minnesota for their projects, or their water management. All of the projects listed were undoubtedly constructed with a valid purpose, whether that was to solve flooding problems, or deal with water quality and supply issues.

However, the flooding problems that exist in North Dakota are, at the very least, equal to what has occurred in Minnesota. The severe flooding around Devils Lake has caused problems that cannot be ignored. Our solutions, however, do not represent a unique situation.

Therefore, we ask for your cooperation in dealing with this issue, as you have cooperated with other entities on similar projects both within and outside of Minnesota.

Sincerely,

Dale L. Frink
State Engineer

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